JMX553A

OPTISK SENSOR

Optical Nitrate Sensor

Deep-UV dual-beam · Reagent-free · Organic compensation · Self-cleaning wiper · RS-485 MODBUS



Product Introduction

The JMX553A wiperable optical nitrate nitrogen (NO_3-N) sensor is based on the deep-UV dual-beam absorption principle, offering stable performance, fast response, and requiring no chemical reagents or pretreatment. Supporting flexible mounting, the sensor enables all-weather continuous monitoring of nitrate concentration during nitrification and denitrification. A built-in compensation channel corrects organic-matter interference in real time, and an automatic cleaning device ensures reliable, stable long-term online monitoring.

Product Features

- RS-485 communication interface with standard MODBUS protocol for easy integration
- Deep-UV dual-beam absorption optical method for high accuracy and strong anti-interference
- Automatic organic-interference compensation for excellent test performance
- Integrated self-cleaning wiper prevents bio-fouling for longer maintenance intervals
- Built-in calibration parameters for convenient on-site use and re-calibration

Product Specification

Parameter	JMX553A Nitrate Sensor
Measurement principle	Deep-UV absorption
Range	0–50 mg/L (other ranges optional)
Accuracy	±5% or 1 mg/L
Resolution	0.01 mg/L
Response time	30 s
Temperature range	0–50 °C
Protection class	IP68
Interface	RS-485, MODBUS protocol
Power	0.25 W (idle); 1 W (brushing)
Recommended supply	DC 12–24 V, ≥1 A
Dimensions	Φ46 mm × 189.5 mm (with protective cover)
Cable length	10 m (default), customizable
Material	316L stainless steel (titanium alloy optional)